

SITE CALCULATIONS (EXISTING)

24,584 SF GROSS LOT AREA

24,584 SF GROSS LOT AREA -13,864 SF STEEP SLOPE AREA

10,720 SF NET LOT AREA

STRUCTURE COVERAGE CALCULATION

TREE IDENTIFICATION

SIZE (DBH)

20°

RETAINED

OFF SITE

YES

TREE/SPECIES

145. ASH

147. MAPLE

CEDAR

SITE INFO

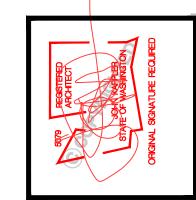
STREET ADDRESSES:

LEGAL DESCRIPTION:

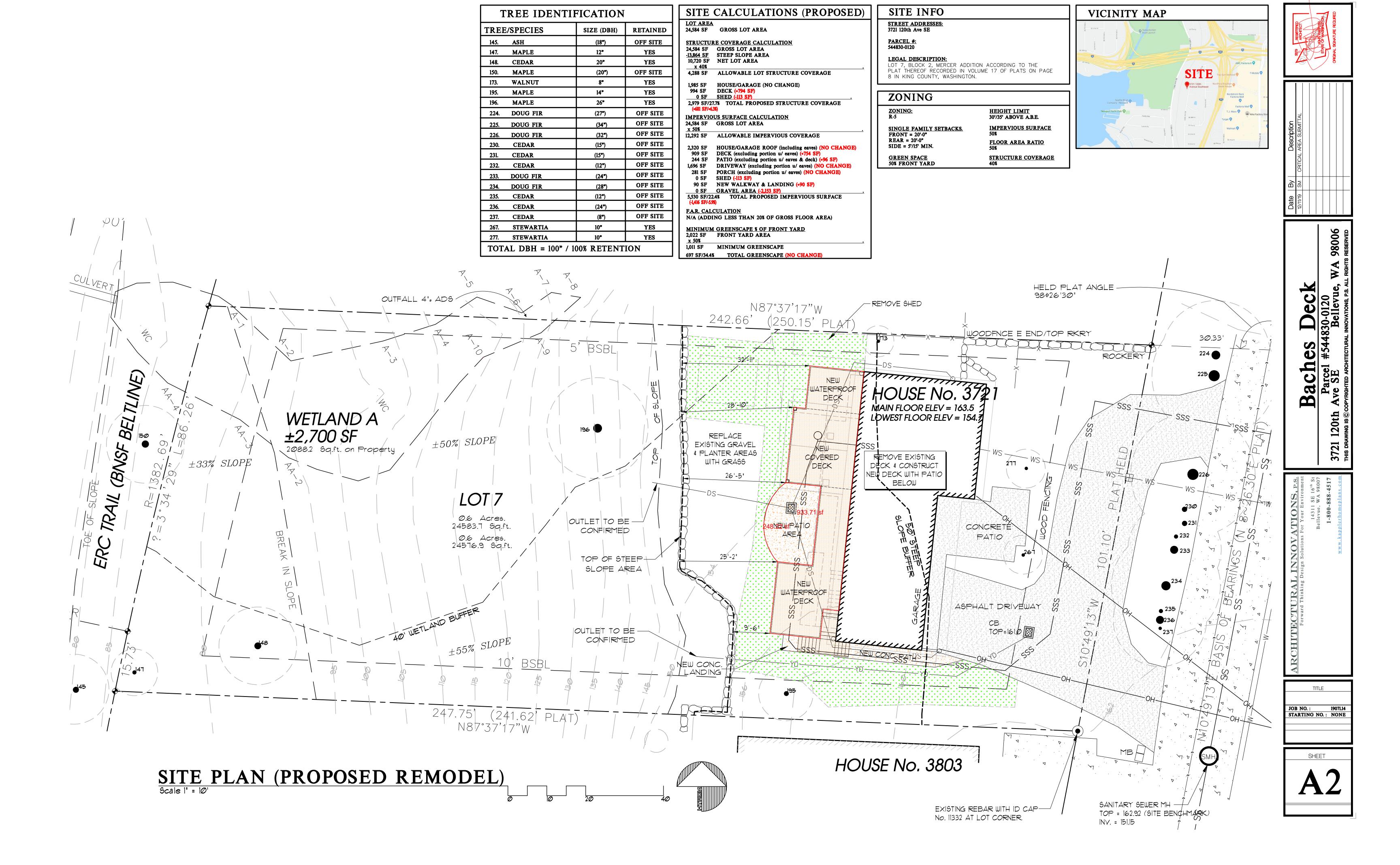
3721 120th Ave SE

PARCEL #:

544830-0120



VICINITY MAP



Altmann Oliver Associates, LLC

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Carnation, WA 98014

Office (425) 333-4535

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January 8, 2020

AOA-5961

Elya Baches 3721 – 120th Ave. SE Bellevue, WA 98006

SUBJECT: Critical Areas Study and Habitat Assessment for Baches Residence

Bellevue, WA (Parcel 544830-0120)

Dear Elya:

On May 14, 2019 AOA conducted a wetland reconnaissance on the subject property utilizing the methodology outlined in the May 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0). The eastern portion of the site is currently developed with your single-family residence and associated maintained yard. The western and central portion of the site slopes moderately to steeply down from east to west and is vegetated with dense blackberry and scattered trees.

Wetland A

One wetland (Wetland A) was identified and delineated on the slope in the western portion of the site. The boundary of Wetland A was subsequently surveyed and is depicted on **Figure 1**. Wetland A is hydrologically supported by groundwater seepage and also collected runoff discharged into the wetland via a culvert located on the adjacent property to the north. The source of the runoff is currently unknown.

Wetland A is considered a Slope Hydrogeomorphic (HGM) class and is vegetated with a scrub-shrub plant community dominated by Himalayan blackberry (*Rubus armeniacus*), reed canarygrass (*Phalaris arundinacea*), giant horsetail (*Equisetum telmateia*), lady fern (*Athyrium filix-femina*), and climbing nightshade (*Solanum dulcamara*).

Attachment A contains data sheets prepared for a representative location in both the wetland and upland. These data sheets document the vegetation, soils, and hydrology information that aided in the wetland boundary delineation.

Elya Baches January 8, 2020 Page 2

Wetland A meets the criteria for a Category IV wetland (**Attachment B**). Category IV wetlands require a standard 40-foot buffer from the wetland edge per LUC 20.25H.035.A.

The top of the steep slope on the property has been surveyed. Steep slopes require a standard 50-foot buffer from the top of the slope. Since the wetland is located entirely on the slope, the 50-foot top of slope buffer would be most restrictive. The buffer area above the top of slope currently consists entirely of existing gravel and yard that does not provide any significant functional benefit to the wetland.

Proposed Project

The proposed project consists of the expansion and re-configuration of the decks along the western side of the existing residence. The geotechnical engineer has determined that the standard steep slope buffer can be reduced to accommodate this work. No native vegetation will be removed from within the steep slope or wetland buffer as part of the project.

The only work proposed within the wetland buffer will be the removal of existing impervious surface and seeding with a grass mix. As part of the project, the total amount of impervious surface within the buffers on the site will decrease (**Figure 2**). Since there will be no loss of native vegetation and there will be a decrease in impervious surfaces, no mitigation plantings should be required.

Habitat Assessment

Twenty-three (23) species have been designated by the City of Bellevue as species of local importance (LUC 20.25H.150). Since there will be no loss of native vegetation or any removal of habitat features as part of the project, there will be no impact to any of these 23 species. Furthermore, since there will be an overall decrease in impervious surfaces within the buffers on the site as part of the project, no compensatory mitigation should be required.

If you have any questions regarding the delineation, please give me a call.

Sincerely,

ALTMANN OLIVER ASSOCIATES, LLC

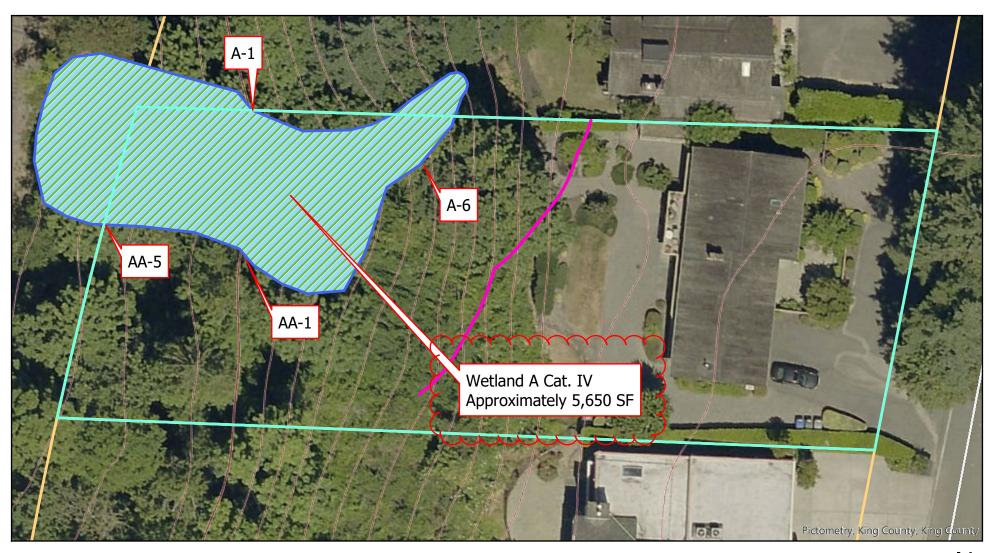
John Altmann Ecologist

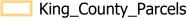
Attachments

Critical Areas Map

AOA - 5961







Subject Property Parcel: 544830-0120

Approximate Wetland A Cat. IV

Approximate 40' Buffer for Wetland A





ATTACHMENT A DATA SHEETS

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site:	3721 120 th A ⁻ Parcel:54483						City/Cour	nty: <u>Bellevue/</u>		Sampling	Date:	<u>5-14</u>	4-1 <u>9</u>	
Applicant/Owner:	Baches	10-0120						St	tate: <u>WA</u>	Sampling	Point:	DP#	<u>#1</u>	
Investigator(s):	John Altmanı	n, Jason Panzera						Section, To	ownship, Rang	e: <u>S9 T2</u>	4N R5E			
Landform (hillslope, te	rrace, etc.):	Slope				Loc	al relief (cond	ave, convex, none)	:		Slope	e (%):		_
Subregion (LRR):	<u>A</u>		Lat:	<u>47.57</u>	<u> 168</u>			Long: -122.17	<u>991</u>		Datum:			
Soil Map Unit Name:	<u>AgD</u>								NWI class	ification:	N/A			
Are climatic / hydrolog	ic conditions o	n the site typical fo	r this time	e of y	ear?	Υ	∕es ⊠	No 🗌 (l	f no, explain in	Remarks.)			
Are Vegetation ☐,	Soil 🔲	, or Hydrology	□, sig	gnifica	antly dis	sturbe	d? Are '	Normal Circumstan	ices" present?		Yes	\boxtimes	No	
Are Vegetation ☐,	Soil 🔲	, or Hydrology	□, na	turall	y probl	ematic	? (If ne	eded, explain any a	answers in Rer	narks.)				
SUMMARY OF FIN	DINGS - At	tach site map s	howing	sam	pling	poin	t locations	transects, impo	ortant featur	es, etc.				
Hydrophytic Vegetation	n Present?		Yes	\boxtimes	No									
Hydric Soil Present?			Yes	\boxtimes	No		Is the Samp within a We				Yes	\boxtimes	No	
Wetland Hydrology Pre	esent?		Yes	\boxtimes	No									
Remarks: 10' Into W	etland off A-1													
VEGETATION - Us	se scientific	names of plant												
Tree Stratum (Plot size	e: <u>10'</u>)		Absolut % Cove		Domin Specie		Indicator <u>Status</u>	Dominance Test	Worksheet:					
1				_				Number of Domir	nant Species		4			(A)
2								That Are OBL, FA	ACW, or FAC:		<u>4</u>			(A)
3								Total Number of I	Dominant		1			(B)
4								Species Across A	All Strata:		<u>4</u>			(D)
50% =, 20% =					= Tota	l Cove	er	Percent of Domin			100			(A/B)
Sapling/Shrub Stratum	<u>1</u> (Plot size: <u>10</u>	<u>''</u>)						That Are OBL, FA	ACW, or FAC:		<u>100</u>			(,,,,
1. Rubus armeniacus	<u>S</u>		<u>30</u>		<u>ves</u>		<u>FAC</u>	Prevalence Inde	x worksheet:					
2								<u>Tota</u>	I % Cover of:		<u>Multipl</u>	y by:		
3								OBL species			x1 =		_	
4								FACW species			x2 =			
5								FAC species			x3 =		_	
50% =, 20% = _					= Tota	I Cove	er	FACU species			x4 =			
Herb Stratum (Plot siz	e: <u>10'</u>)							UPL species			x5 =		_	
1. Phalaris arundinad	<u>cea</u>		<u>70</u>		<u>yes</u>		<u>FACW</u>	Column Totals:	(A)			(E	3)
2. <u>Equisetum telmate</u>	<u>eia</u>		<u>20</u>		<u>ves</u>		<u>FACW</u>		Prevalence I	ndex = B/A	\ =			
3								Hydrophytic Veg	=					
4								☐ 1 – Rapid T	est for Hydrop	hytic Vege	etation			
5								🛛 2 - Dominaı	nce Test is >50	1%				
6								☐ 3 - Prevaler	nce Index is <3	.0 ¹				
7									ogical Adaptat			ting		
8								data in F	Remarks or on	a separate	e sheet)			
9								☐ 5 - Wetland	Non-Vascular	Plants ¹				
10								☐ Problemation	C Hydrophytic \	egetation	¹ (Explain)			
11								1 m dia atara of hyd	ria aail amd wa	tland hudr	alamı mayat			
50% =, 20% = _					= Tota	l Cove	er	¹ Indicators of hyd be present, unles						
Woody Vine Stratum (Plot size: <u>10'</u>)													
Solanum dulcama	<u>ra</u>		<u>25</u>		<u>yes</u>		<u>FAC</u>							
2								Hydrophytic Vegetation	Ye	s	\boxtimes	No		
50% =, 20% = _					= Tota	l Cove	er	Present?						_
% Bare Ground in Her	b Stratum	<u>—</u>												
Remarks:														

Project Site: 3721 120th Ave SE Parcel:544830-0120

SOIL Sampling Point: DP#1 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features % Color (moist) (inches) Color (moist) % Loc² Texture Remarks Type¹ 0-16 10 YR 3/1 100 Silty Clay ¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils3: Histosol (A1) Sandy Redox (S5) \Box П \Box 2 cm Muck (A10) Histic Epipedon (A2) Red Parent Material (TF2) Stripped Matrix (S6) П Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) \boxtimes П Thick Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present): Type: \boxtimes Depth (inches): **Hydric Soils Present?** Yes No Remarks: compacted gravel at 16" **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) \boxtimes Surface Water (A1) Water-Stained Leaves (B9) Water-Stained Leaves (B9) \boxtimes High Water Table (A2) (except MLRA 1, 2, 4A, and 4B) (MLRA 1, 2, 4A, and 4B) \boxtimes Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) П Sediment Deposits (B2) П Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) FAC-Neutral Test (D5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stresses Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes \boxtimes No Depth (inches): surface \boxtimes Water Table Present? Yes No Depth (inches): surface Saturation Present? Yes M Yes \boxtimes No Depth (inches): surface **Wetland Hydrology Present?** Nο (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project Site:	3721 120 th Av Parcel:54483						City/Cour	nty: <u>Bellevue/</u>	s	ampling D	ate:	<u>5-14</u>	<u>-19</u>	
Applicant/Owner:	Baches	10-012 <u>0</u>						State	e: <u>WA</u> S	ampling P	oint:	DP#	<u>2</u>	
Investigator(s):	John Altmanr	n, Jason Panzera						Section, Tow	nship, Range:	S9 T24I	N R5E			
Landform (hillslope, ter	race, etc.):	Slope				Loca	al relief (cond	ave, convex, none):			Slope	e (%):		
Subregion (LRR):	<u>A</u>		Lat:	47.57	<u> 68</u>			Long: -122.1799	<u>1</u>		Datum:			
Soil Map Unit Name:	<u>AgD</u>								NWI classifi	cation:	N/A			
Are climatic / hydrologic	c conditions o	n the site typical fo	r this time	e of ye	ear?	Υ	′es ⊠	No ☐ (If n	o, explain in F	Remarks.)				
Are Vegetation \square ,	Soil 🔲,	or Hydrology	□, sig	gnifica	antly di	isturbe	d? Are '	Normal Circumstance	s" present?		Yes	\boxtimes	No	
Are Vegetation ☐,	Soil □,	or Hydrology	□, na	turally	y probl	lematic	? (If ne	eded, explain any ans	swers in Rema	arks.)				
SUMMARY OF FINI	DINGS - At	tach site map s	howing	sam	pling	j poin	t locations	transects, import	ant feature	s, etc.				
Hydrophytic Vegetation	Present?		Yes		No	\boxtimes								
Hydric Soil Present?			Yes		No	\boxtimes	Is the Samp within a We				Yes		No	\boxtimes
Wetland Hydrology Pre	sent?		Yes		No	\boxtimes								
Remarks: 10' Into up	land off A-1													
VEGETATION - Us	e scientific	names of plant												
Tree Stratum (Plot size	e: <u>10;</u>)		Absolut % Cove		Domir Speci		Indicator Status	Dominance Test W	orksheet:					
1. Acer macrophyllum	<u>1</u>		100	_	yes		FACU	Number of Dominar	nt Species		_			
2								That Are OBL, FAC			<u>2</u>			(A)
3								Total Number of Do	minant		_			(D)
4								Species Across All S	Strata:		<u>5</u>			(B)
50% =, 20% = _					= Tota	al Cove	er	Percent of Dominan	nt Species		40			(A/B)
Sapling/Shrub Stratum	(Plot size: 10	<u>'</u>)						That Are OBL, FAC	W, or FAC:		<u>40</u>			(A/B)
1. Corylus cornuta			<u>30</u>		<u>ves</u>		<u>FACU</u>	Prevalence Index v	worksheet:					
2. Rubus armeniacus			<u>30</u>		<u>ves</u>		<u>FAC</u>	Total %	6 Cover of:		Multip	ly by:		
3								OBL species			x1 =		_	
4								FACW species	<u>10</u>		x2 =	<u>20</u>		
5								FAC species	<u>30</u>		x3 =	90		
50% =, 20% = _					= Tota	al Cove	er	FACU species	<u>155</u>		x4 =	620		
Herb Stratum (Plot size	e: <u>10'</u>)							UPL species			x5 =		_	
1. Polystichum munitu	<u>um</u>		<u>25</u>		<u>ves</u>		<u>FACU</u>	Column Totals:	<u>195</u> (A)			730	(B)	
2. Equesetum telmate	<u>eia</u>		<u>10</u>		<u>ves</u>		FACW		Prevalence In	ndex = B/A	\ = <u>3.74</u>			
3								Hydrophytic Veget	tation Indicat	ors:				
4								☐ 1 – Rapid Tes	t for Hydrophy	ytic Vegeta	ation			
5								2 - Dominance	e Test is >50%	6				
6								☐ 3 - Prevalence	e Index is <3.0) ¹				
7								4 - Morpholog	ical Adaptatio	ns¹ (Provi	de suppo	ting		
8								☐ data in Rer	marks or on a	separate	sheet)			
9								☐ 5 - Wetland N	on-Vascular F	Plants ¹				
10								☐ Problematic H	lydrophytic Ve	egetation ¹	(Explain)			
11								4						
50% =, 20% = _					= Tota	al Cove	er	¹ Indicators of hydric be present, unless of						
Woody Vine Stratum (F	Plot size: <u>10'</u>)							, ,						
1														
2								Hydrophytic Vegetation	Yes		_	No		\boxtimes
50% =, 20% = _					= Tota	al Cove	er	Present?	163	L		140		ы
% Bare Ground in Herb	o Stratum													
Remarks:														

Project Site: 3721 120th Ave SE Parcel:544830-0120

SOIL Sampling Point: DP#2 Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Redox Features % Color (moist) (inches) Color (moist) % Loc² Texture Remarks Type¹ 0-15 10 YR 4/3 100 **GSL Gravelly Sandy Loam** ¹Type: C= Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils3: Histosol (A1) Sandy Redox (S5) \Box П \Box 2 cm Muck (A10) Histic Epipedon (A2) Red Parent Material (TF2) Stripped Matrix (S6) П Black Histic (A3) Loamy Mucky Mineral (F1) (except MLRA 1) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) П Thick Dark Surface (A12) Redox Dark Surface (F6) ³Indicators of hydrophytic vegetation and Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) wetland hydrology must be present, Sandy Gleyed Matrix (S4) Redox Depressions (F8) unless disturbed or problematic. Restrictive Layer (if present): Type: \boxtimes Depth (inches): **Hydric Soils Present?** Yes No Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (2 or more required) Surface Water (A1) Water-Stained Leaves (B9) Water-Stained Leaves (B9) High Water Table (A2) (except MLRA 1, 2, 4A, and 4B) (MLRA 1, 2, 4A, and 4B) Saturation (A3) Salt Crust (B11) Drainage Patterns (B10) Water Marks (B1) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) П Sediment Deposits (B2) П Hydrogen Sulfide Odor (C1) Saturation Visible on Aerial Imagery (C9) Drift Deposits (B3) Oxidized Rhizospheres along Living Roots (C3) Geomorphic Position (D2) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Shallow Aquitard (D3) Iron Deposits (B5) FAC-Neutral Test (D5) Recent Iron Reduction in Tilled Soils (C6) Surface Soil Cracks (B6) Stunted or Stresses Plants (D1) (LRR A) Raised Ant Mounds (D6) (LRR A) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No \boxtimes Depth (inches): \boxtimes Water Table Present? Yes No Depth (inches): Saturation Present? Yes \boxtimes Yes No \boxtimes Depth (inches): Wetland Hydrology Present? Nο (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: Dry

ATTACHMENT B WETLAND RATING

RATING SUMMARY – Western Washington

Name of wetland (or ID #):	Parcel 544830-0120			_ Date of site visit:	5/14/2019
Rated by Altmann		Trained by Ecology?⊡	Yes□ No	Date of training	03/08 & 03/15
HGM Class used for rating	Slope	Wetlar	nd has mult	tiple HGM classes?□	Yes ☑ No
	e of base aerial photo/n	the figures requested nap King County iMAP (based on functions		cial characteristics □)	
1. Category of wetlan	d based on FUNCTI	ONS			
• •	Category I - Total so	ore = 23 - 27		Score for each	
	Category II - Total s	core = 20 - 22		function based	
				on three	
X	Category IV - Total s	score = 9 - 15		ratings	
	_			(order of ratings	
				Τ; ,	

FUNCTION	Improving Water Quality	Hydrologic	Habitat			
List appropriate rating (H, M, L)						
Site Potential	M	L	L			
Landscape Potential	M	M	L			
Value	Н	L	L	Total		
Score Based on Ratings	7	4	3	14		

Score for each function based on three ratings (order of ratings is not important)

9 = H, H, H
8 = H, H, M
7 = H, H, L
7 = H, M, M
6 = H, M, L
6 = M, M, M
5 = H, L, L
5 = M, M, L
4 = M, L, L
3 = L, L, L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	Category
Estuarine	
Wetland of High Conservation Value	
Bog	
Mature Forest	
Old Growth Forest	
Coastal Lagoon	
Interdunal	
None of the above	Х

SLOPE WETLANDS						
Water Quality Functions - Indicators that the site functions to imp	Water Quality Functions - Indicators that the site functions to improve water quality					
S 1.0. Does the site have the potential to improve water quality?						
S 1.1. Characteristics of the average slope of the wetland: (a 1% slope has a 1 f elevation for every 100 ft of horizontal distance)	t vertical drop in					
Slope is 1% or less	points = 3	0				
Slope is > 1% - 2%	points = 2	U				
Slope is > 2% - 5%	points = 1					
Slope is greater than 5%	points = 0					
S 1.2. <u>The soil 2 in below the surface (or duff layer)</u> is true clay or true organic (use NRCS definitions):	Yes = 3 No = 0	3				
S 1.3. Characteristics of the plants in the wetland that trap sediments and pollutants: Choose the points appropriate for the description that best fits the plants in the wetland. Dense means you have trouble seeing the soil surface (>75% cover), and uncut means not grazed or mowed and plants are higher than 6 in.						
Dense, uncut, herbaceous plants > 90% of the wetland area	points = 6	3				
Dense, uncut, herbaceous plants > ½ of area	points = 3					
Dense, woody, plants > ½ of area	points = 2					
Dense, uncut, herbaceous plants > ¼ of area	points = 1					
Does not meet any of the criteria above for plants	points = 0					
Total for S 1 Add the points in	n the boxes above	6				

Rating of Site Potential If score is:

12 = H

6 - 11 = M

0 - 5 = L

Record the rating on the first page

S 2.0. Does the landscape have the potential to support the water quality function of the site?				
S 2.1. Is > 10% of the area within 150 ft on the uphill side of the wetland in land uses that generate pollutants? Yes = 1 No = 0		1		
S 2.2. Are there other sources of pollutants coming into the wetland that are not listed in question S 2.1?			0	
Other Sources	Yes = 1	No = 0		
Total for S 2 Add the points in the boxes above			1	

Record the rating on the first page

S 3.0. Is the water quality improvement provided by the site value	able to society?	
S 3.1. Does the wetland discharge directly (i.e., within 1 mi) to a lake, or marine water that is on the 303(d) list?	stream, river, Yes = 1 No = (1
S 3.2. Is the wetland in a basin or sub-basin where water quality At least one aquatic resource in the basin is on the 303(d) list.	is an issue? Yes = 1 No = (1
S 3.3. Has the site been identified in a watershed or local plan as maintaining water quality? Answer YES if there is a TMDL for the which the unit is found?		0
Total for S 3	Add the points in the boxes above	2

Record the rating on the first page

SLOPE WETLANDS			
Hydrologic Functions - Indicators that the site functions to reduce flooding and stream erosion			
S 4.0. Does the site have the potential to reduce flooding and stream erosion?			
S 4.1. Characteristics of plants that reduce the velocity of surface flows during storms: Choose the points appropriate for the description that best fits conditions in the wetland. <i>Stems of plants should be thick enough (usually</i> > ¹ / ₈ in), or dense enough, to remain erect during surface flows.			
Dense, uncut, rigid plants cover > 90% of the area of the wetland points = 1 All other conditions points = 0			

Rating of Site Potential If score is: □ 1 = M ☑ 0 = L

Record the rating on the first page

S 5.0. Does the landscape have the potential to support hydrologic functions of	of the site?		
S 5.1. Is more than 25% of the area within 150 ft upslope of wetland in land			1
uses or cover that generate excess surface runoff?	Yes = 1	No = 0	Į.
Rating of Landscape Potential If score is: 1 = M	Record the	ratina on	the first page

S 6.0. Are the hydrologic functions provided by the site valuable to society?		
S 6.1. Distance to the nearest areas downstream that have flooding problems:		
The sub-basin immediately down-gradient of site has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds)	points = 2	0
Surface flooding problems are in a sub-basin farther down-gradient	points = 1	
No flooding problems anywhere downstream	points = 0	
S 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for S 6 Add the points	in the boxes above	0

Rating of Value If score is:

2-4=H

1=M

0=L

Record the rating on the first page

NOTES and FIELD OBSERVATIONS:

Wetland name or numberA	
These questions apply to wetlands of all HGM classes.	
HABITAT FUNCTIONS - Indicators that site functions to provide important habitat	
H 1.0. Does the site have the potential to provide habitat?	
H 1.1. Structure of plant community: Indicators are Cowardin classes and strata within the Forested class. Check the Cowardin plant classes in the wetland. Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.	
 □ Aquatic bed □ Emergent □ Scrub-shrub (areas where shrubs have > 30% cover) □ Forested (areas where trees have > 30% cover) □ If the unit has a Forested class, check if: □ The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon 	0
H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (see text for descriptions of hydroperiods).	
 □ Permanently flooded or inundated □ Seasonally flooded or inundated □ Occasionally flooded or inundated □ Occasionally flooded or inundated □ Saturated only □ Permanently flowing stream or river in, or adjacent to, the wetland □ Seasonally flowing stream in, or adjacent to, the wetland □ Lake Fringe wetland □ Freshwater tidal wetland 2 points 2 points 	0
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft ² . Different patches of the same species can be combined to meet the size threshold and you do not have to name the species. Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle If you counted: > 19 species points = 2 5 - 19 species points = 1 < 5 species points = 0	1
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. If you have four or more plant classes or three classes and open water, the rating is always high. None = 0 points Low = 1 point Moderate = 2 points	0
All three diagrams in this row are HIGH = 3 points	

Rating of Site Potential If Score is:

15 - 18 = H

7 - 14 = M

0 - 6 = L

Record the rating on the first page

H 2.0. Does the landscape have the potential to support the habitat function of the site?				
H 2.1 Accessible habitat (include only habitat that directly abuts w				
Calculate:				
1.2 % undisturbed habitat + (0 % moderate & low intensity land uses / 2) = 1.2%				
\ <u></u>	, ,			
If total accessible habitat is:		0		
> 1/3 (33.3%) of 1 km Polygon	points = 3			
20 - 33% of 1 km Polygon	points = 2			
10 - 19% of 1 km Polygon	points = 1			
< 10 % of 1 km Polygon	points = 0			
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland.				
Calculate:				
16.5 % undisturbed habitat + (9 % moderate & lo	ow intensity land uses / 2) = 21%			
		2		
Undisturbed habitat > 50% of Polygon	points = 3	2		
Undisturbed habitat 10 - 50% and in 1-3 patches	points = 2			
Undisturbed habitat 10 - 50% and > 3 patches	points = 1			
Undisturbed habitat < 10% of 1 km Polygon	points = 0			
H 2.3 Land use intensity in 1 km Polygon: If				
> 50% of 1 km Polygon is high intensity land use	points = (-2)	-2		
≤ 50% of 1km Polygon is high intensity	points = 0			
Total for H 2	Add the points in the boxes above	0		

Rating of Landscape Potential If Score is: 4 - 6 = H 0 1 - 3 = M 0 < 1 = L Record the rating on the first page

H 3.0. Is the habitat provided by the site valuable to society?					
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? Choose					
only the highest score that applies to the wetland being rated.					
Site meets ANY of the following criteria: points = 2					
□ It has 3 or more priority habitats within 100 m (see next page)					
	It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists)				
	It is mapped as a location for an individual WDFW priority species		0		
	It is a Wetland of High Conservation Value as determined by the Department of Natural Resources		0		
	It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan				
Site has 1	or 2 priority habitats (listed on next page) with in 100m	points = 1			
Site does not meet any of the criteria above points = 0					

WDFW Priority Habitats

<u>Priority habitats listed by WDFW</u> (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp.

http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: **NOTE**: This question is independent of the land use between the wetland unit and the priority habitat.

Aspen Stands: Pure or mixed stands of aspen greater than 1 ac (0.4 ha).
Biodiversity Areas and Corridors : Areas of habitat that are relatively important to various species of native fish and wildlife (<i>full descriptions in WDFW PHS report</i>).
Herbaceous Balds: Variable size patches of grass and forbs on shallow soils over bedrock.
Old-growth/Mature forests: Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.
Oregon White Oak : Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (<i>full descriptions in WDFW PHS report p. 158 – see web link above</i>).
Riparian : The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.
Westside Prairies : Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (<i>full descriptions in WDFW PHS report p. 161 – see web link above</i>).
Instream : The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.
Nearshore : Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (<i>full descriptions of habitats and the definition of relatively undisturbed are in WDFW report</i> – <i>see web link on previous page</i>).
Caves : A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.
Cliffs: Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.
Talus : Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.
Snags and Logs : Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

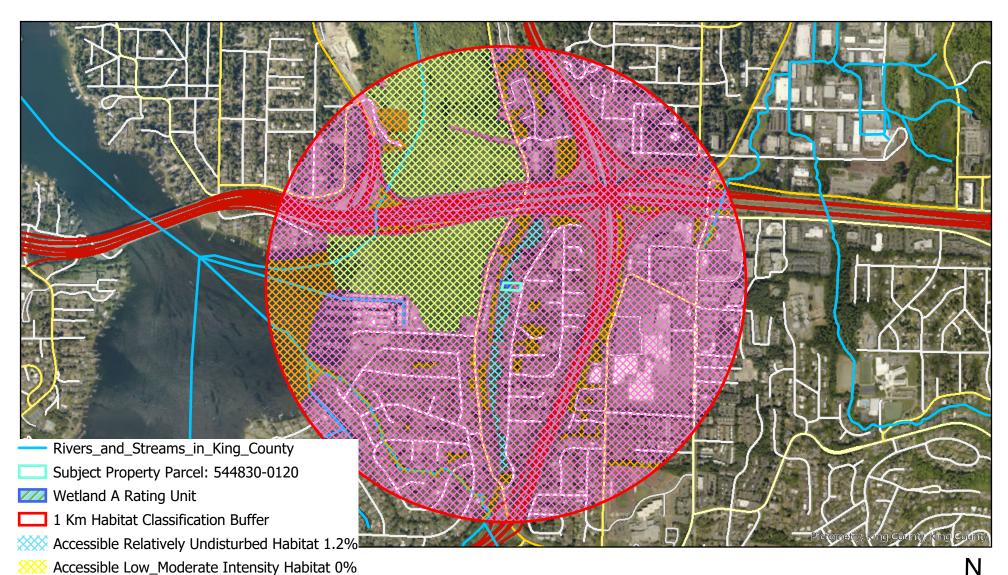
in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12

Figure A

AOA - 5961





500 1,000

2,000

3,000



4,000 US Feet

WW High Intensity Habitat 74.5%

Relatively Undisturbed Habitat 15.3%

Low_Moderate Intensity Habitat 9%

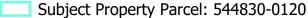
Environmental Architecture

Figure B

AOA - 5961







Wetland A Rating Unit

150' Pollution Buffer

Pollution Generating Surfaces 31.1%

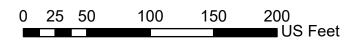


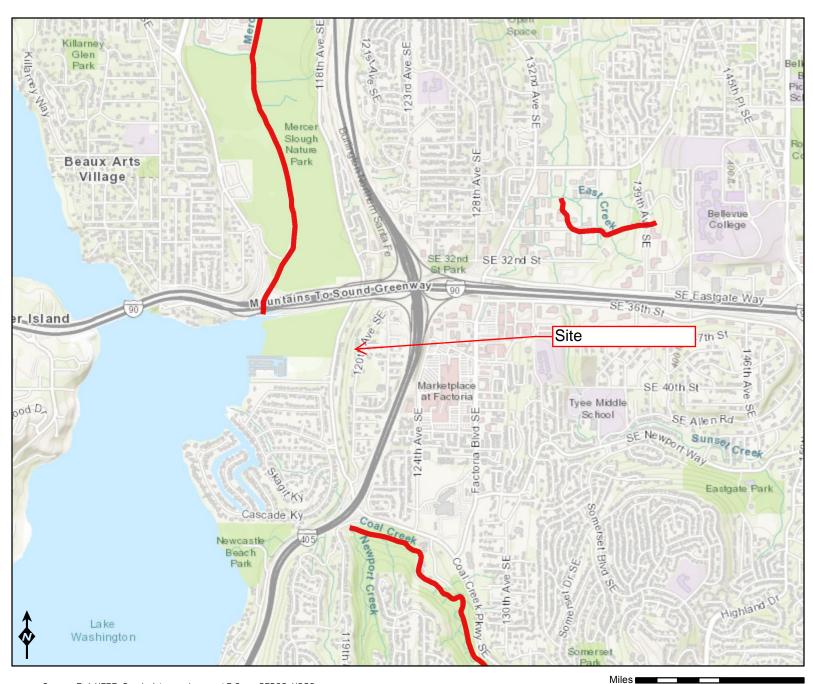


Figure C

0.25

0.5

Water Quality Atlas Map



Assessed Waters/Sediment

Water

- Category 5 303d
- Category 4C
- 🤟 Category 4B
- Category 4A
- Category 2
- Category 1

Sediment

- Category 5 303d
- ZZZ Category 4C
- **ZZZ** Category 4B
- Category 4A
- Category 2
- ZZZZ Category 1

 http://www.ecy.wa.gov:80/programs/wq/tmdl/TMDLsbyWria/tmdl-wria08.html
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 15 captures
 2015
 2017
 2018
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Figure D

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Home

Water Quality & Supply

Waste & Toxics

Air & Climate

Cleanup & Spills

Water Quality Improvement Projects (TMDLs)

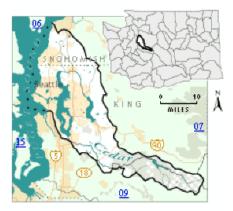
Water Quality Improvement > Water Quality Improvement Projects by WRIA > WRIA 8: Cedar-Sammamish

WRIA 8: Cedar-Sammamish

The following table lists overview information for water quality improvement projects (including total maximum daily loads, or TMDLs) for this water resource inventory area (<u>WRIA</u>). Please use links (where available) for more information on a project.

Counties

- King
- Snohomish



Waterbody Name	Pollutants	Status**	TMDL Lead	
<u>Ballinger Lake</u>	Total Phosphorus	Approved by EPA	<u>Tricia Shoblom</u> 425-649-7288	
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	<u>Joan Nolan</u> 425-649-4425	
	Dissolved Oxygen Temperature	Approved by EPA		
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	<u>Tricia Shoblom</u> 425-649-7288	
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	<u>Joan Nolan</u> 425-649-4425	
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7036	
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7036	
Pipers Creek	Fecal Coliform	Approved by EPA	<u>Joan Nolan</u> 425-649-4425	
Sammamish River	Dissolved Oxygen Temperature	Field work starts summer 2015	Ralph Svrjcek 425-649-7036	
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7036	

^{**} Status will be listed as one of the following: Approved by EPA, Under Development or Implementation

For more information about WRIA 8:

- Waterbodies in WRIA 8 using the Water Quality Assessment Query Tool
- Watershed Information for WRIA 8

^{*} The Department of Ecology and other state resource agencies frequently use a system of 62 "Water Resource Inventory Areas" or "WRIAs" to refer to the state's major watershed basins.

